## $\begin{array}{c} {\rm rCAT~v0.1} \\ {\rm Relational~Character~Analysis~Tool} \end{array}$

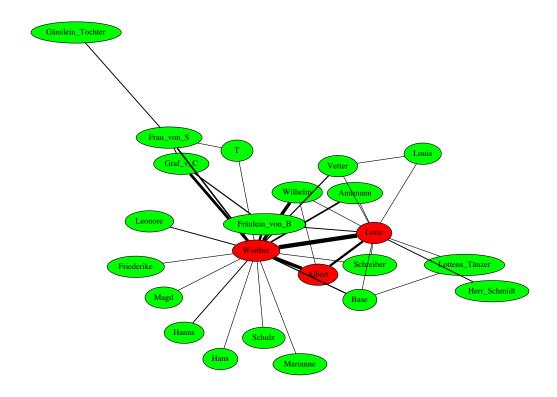


Figure 1: Network

## 1 Data Input

#### **Statistics**

• timestamp: 2018-06-22 13:37:46

• analyzed text: "1\_\_\_1 Goethe\_Die\_Leiden\_des\_jungen\_Werthers\_1774.txt"

 $\bullet$  length of text: 35461 tokens

• number of characters (with at least one degree): 23

#### Input parameters

• distance measure: 10

- context measure 1 (words before Character 1): 8

• context measure 2 (words after Character 2): 8

## 2 Network Parameters

Here you can get information about the network parameters.

#### **Definitions**

• Average degree: The degree of a node is the number of edges connected to it. It measures the number of connections to other characters. Average degree is calculated on a probability of two nodes being connected.

• SD degree: Standard deviation of all degrees.

• Density: Graph density is the ratio of the number of edges to the number of possible edges.

• Weighted degree: Sum of weights of incident edges. Measures the number of interactions of a character.

#### Current network parameters

 $\bullet$  average degree: 3.0434782608695654

sd degree: 3.878592304028559density: 0.1383399209486166

#### Degrees

degree	weighted degree
18	322
11	179
3	65
3	51
3	30
3	19
4	10
2	7
3	5
3	5
2	2
2	2
1	2
1	2
2	2
2	2
1	2
1	2
1	1
1	1
1	1
1	1
1	1
	18 11 3 3 3 3 4 2 3 3 2 1 1 1 1 1 1 1 1

## Weights for Edges

Character Pair (Edge)	Weight
Werther Lotte	155
Werther Albert	51
Werther Wilhelm	49
Werther Graf v. C.	25
Werther Fräulein von B	14
Lotte Albert	13
Werther Amtmann	6
Werther Frau von S	5
Werther Vetter	3
Werther Base	3
Graf v. C Fräulein von B	3
Werther Hanns	2
Werther Leonore	2
Lotte Fräulein von B	2
Lotte Herr Schmidt	2
Graf v. C Frau von S	2
Gänslein Tochter Frau von S	2
Werther Friederike	1
Werther Magd	1
Werther Schreiber	1
Werther Hans	1
Werther Marianne	1
Werther T	1
Werther Schulz	1
Lotte Wilhelm	1
Lotte Vetter	1
Lotte Schreiber	1
Lotte Louis	1
Lotte Amtmann	1
Lotte Base	1
Lotte Lottens Tänzer	1
Albert Wilhelm	1
Vetter Louis	1
Base Lottens Tänzer	1
Frau von S T	1
Werther Der Baron F	0
Werther Grafen von M	0
Werther Louis	0
Werther Herrn Gemahl	0
Werther Gänslein Tochter	0
Werther Gansiem Tochter  Werther Hofrat R	0
Werther Der ältste Bub	0
Werther Der artste Bub  Werther mein gutes Weib unter der Linde	0
Werther Meine Großmutter  Werther Meine Großmutter	0
Werther meine Gesellschafterin	0
Werther Lottens Tänzer	0
Werther Cottens Tanzer Werther Obrist B.	0
Werther Herr Schmidt	, ,
	0
Werther seiner tauben Frau Werther den übel fournierten J.	0
wertner den ubei iournierten J.	0

# 3 Word Cloud for single characters (method: most frequent contexts words

These word clouds were constructed based on most frequent words. They show the most frequent words that appear around character mention.



Figure 2: word cloud of "Werther"



Figure 3: word cloud of "Lotte"



Figure 4: word cloud of "Albert"

# 4 Word Cloud for character pairs (method: most frequent contexts words

These word clouds were constructed based on most frequent words. They show the most frequent words that appear in the context of the character pair.



Figure 5: word cloud of "Werther -- Lotte"



Figure 6: word cloud of "Werther -- Albert"



Figure 7: word cloud of "Werther -- Wilhelm"

### rCat, v.0.1

This program is developed by Florian Barth and Evgeny Kim with the help of Roman Klinger and Sandra Murr. It is part of the Center for Reflected Text Analytics (CRETA) at the University of Stuttgart.

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